

Fig. 1a Diagram to show cyanoacrylate glue being pressed onto skin by glass microscope slide and below the final skin surface biopsy specimen with transparent cyanoacrylate glue and stratum corneum specimen.

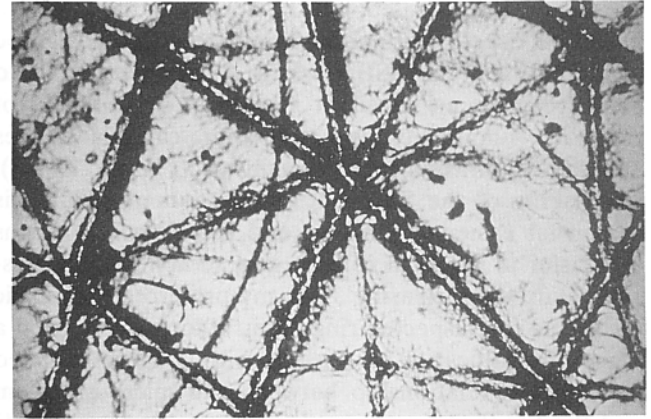


Fig. 2 Photomicrograph of skin surface biopsy from back of hand showing typical rhomboidal pattern (unstained $\times 25$).

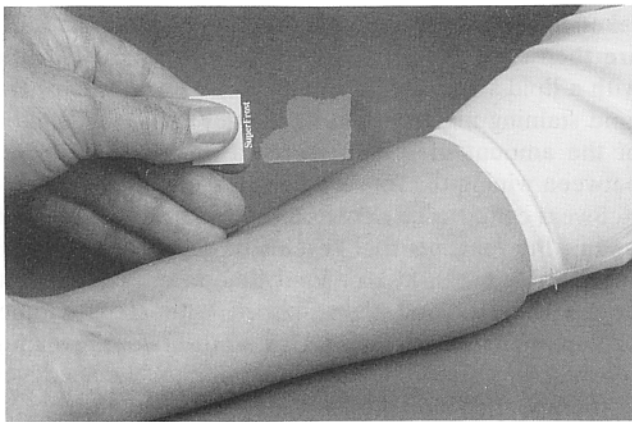


Fig. 1b Photomicrograph of skin surface biopsy on glass slide and arm from which it has been taken.

anyway are completely removed with the taking of the specimen. Indeed, various cyanoacrylates have been used as tissue cements for some years and recently there has been a resurgence of interest in octyl cyanoacrylate to seal small lesions.² As already mentioned, cyanoacrylates are not toxic, but problems can arise from the rapid bonding that occurs when the adhesive contacts skin. The classic problem is that fingers become stuck together—although the problem is easily solved by dunking the fingers in a beaker of acetone which instantly dissolves the adhesive, particular care must be taken when sampling facial skin. To prevent the adhesive running into the eyes, the procedure should only be performed with the patient sitting up.

Skin Surface Morphology

Skin surface biopsies (SSB) from limb skin and from same sites on the trunk have a characteristic geometric pattern with the surface arranged in a series of rhomboids (Fig. 2). When the skin is put on the stretch, the rhomboids become narrower and if the change in width of these geometric figures is assessed it can be used as a measure of compliance of the stratum corneum. If the degree of extension is known, this can be used as a simple test of mechanical function. There are striking regional differences in the skin surface pattern.³ The palms and soles, for example, show the dermatoglyphic ridges which make up the characteristically unique 'finger prints'. At the peaks of the ridges there are the openings of the eccrine ducts which are quite easy to see. In fact, it is quite difficult to obtain skin surface biopsies from the palms and soles because the bonding strength of the palms and soles is often equal to or even greater than the bonding strength of the adhesive. Gently hydrating the region first makes the obtaining of an SSB from the palm or sole somewhat easier and with a little patience and perseverance it is usually possible to successfully obtain a specimen.

The face has interesting surface morphology which differs from limb and trunk skin by not having the same rhomboidal patterning. In male beard areas there is prominence of the hair follicle in marked contrast to the delicate hair follicle openings seen on the forehead and cheek.

The Morphology of Skin

The SSB technique is ideal for the investigation of the *in situ* microbiology of skin.⁴ Not only are SC